• •	BUCKET NO.: 1818 789				I ALLESIVI
	OIPE IN THE UNITED S	STATES PAT	ENT AND T	RADEMARK OFFI	CE
PATERIA	In Re Appendication of:	COPY OF PAR ORIGINALLY R		Group Art Unit: No	ot .
	Muthiah Manoharan Venkatraman Mohan Phillip Dan Cook Andrew M. Kawasaki		,	Examiner: Not Assi	gned
For: OLIGONUCLEOTIDES HAVING A DNA FORM AND B-DNA FORM CONFORMATIONAL GEOMETRY					
	DECLA	RATION ANI	O POWER OF	FATTORNEY	
	As a below named inventor, I	hereby declare	e that:		
	My residence, post office addr	ress and citize	nship are as st	ated below next to my	y name; and
	I believe that I am the original, first and sole inventor (if only one name is listed below) or a original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a			d below) or an matter which	
	□ Utility Pate	ent	Design P	atent	·

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

said application having been amended on _____.

was filed on October 4, 2001 as Serial No. 09/970,971.

is sought on the invention, whose title appears above, the specification of which:

is attached hereto.

I acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to be material to the patentability of this application in accordance with 37 CFR § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a-d) of any **foreign** application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of any application on which priority is claimed:

Priority Claimed (If X'd)	Country	Serial Number	Date Filed
			·

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to be material to patentability as defined in 37 CFR § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

Serial Number	Date Filed	Patented/Pending/Abandoned
09/303,586	05/03/99	Pending
08/936,166	09/23/97	Pending
07/835,932	03/05/92	Pending
PCT/US91/05720	08/12/91	·

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below:

Serial Number	Date Filed

I hereby appoint the following persons as attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Attorney/Agent	Registration No.
John W. Caldwell	28,937
Michael P. Straher	38,325

PATENT

DOCKET NO.: ISIS-4789

of WOODCOCK WASHBURN LLP, One Liberty Place - 46th Floor, Philadelphia, Pennsylvania 19103 and

Herb Boswell

Registration No. 27,311

Laurel Bernstein

Registration No. 37,280

Robert S. Andrews

Registration No. 44,508

April Logan

Registration No. 33,950

Neil S. Bartfeld

Registration No. 39,901

Kenneth H. Tarbet

Registration No. 43,181

of ISIS PHARMACEUTICALS, INC., 2292 Faraday Avenue, Carlsbad, California 92008

Address all telephone calls and correspondence to:

WOODCOCK WASHBURN LLP

One Liberty Place - 46th Floor

Philadelphia PA 19103

Telephone No.: (215) 568-3100 Facsimile No.: (215) 568-3439

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name:	
Mithiah Manoharan	
Mailing Address:	Signature
7634 Reposado Drive Carlsbad, CA 92009	Date of Signature:
City/State of Actual Residence:	Citizenship: USA
Carlsbad, CA 92009	



Venkatraman Mohan

Name:

Mailing Address:

7042 Via Cabana

10 Sycamore DR. Carlsbad, CA-92009 Plainsboro, NJ.

08536

City/State of Actual Residence:

Carlsbad, CA 92009

Plainsboro, NJ 08536

Signature

Date of Signature: 12-07-01

Citizenship: India USA

Name: Phillip Dan Cook Signature Mailing Address: 5237 Olive Hill Road Date of Signature: _____ Fallbrook, CA 92028 City/State of Actual Residence: Citizenship: USA Fallbrook, CA 92028

Name:

Andrew M. Kawasaki

Mailing Address:

10554 Abalone Terrace San Diego, CA 92130

City/State of Actual Residence:

San Diego, CA 92130

Signature

Date of Signature: 12-04-01

Cide M. Kvaski

Citizenship: USA

DOCKET NO.: ISIS-4789

JAN 2 5 2002

JAN 2 5 2002

JAN 2 5 2002

Group Art Unit: Not Assigned

Muthiah Manoharan Venkatraman Mohan Phillip Dan Cook Andrew M. Kawasaki

Examiner: Not Assigned

For: OLIGONUCLEOTIDES HAVING A DNA FORM AND B-DNA FORM CONFORMATIONAL GEOMETRY

DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name; and

I believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a

∐ Utility Patent	Design Patent
is sought on the invention, whose title	appears above, the specification of which:
is attached hereto.	
was filed on October	er 4, 2001 as Serial No. <u>09/970,971</u> .
said application hav	ving been amended on

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to be material to the patentability of this application in accordance with 37 CFR § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a-d) of any **foreign** application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of any application on which priority is claimed:

DOCKET NO.: ISIS-4789

Priority Claimed (If X'd)	Country	Serial Number	Date Filed

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to be material to patentability as defined in 37 CFR § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

Serial Number	Date Filed	Patented/Pending/Abandoned
09/303,586	05/03/99	Pending
08/936,166	09/23/97	Pending
07/835,932	03/05/92	Pending
PCT/US91/05720	08/12/91	

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below:

Serial Number	Date Filed

I hereby appoint the following persons as attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Attorney/Agent	Registration No.
John W. Caldwell	28,937
Michael P. Straher	38,325

DOCKET NO.: ISIS-4789 PATENT

of **WOODCOCK WASHBURN LLP**, One Liberty Place - 46th Floor, Philadelphia, Pennsylvania 19103 and

Herb Boswell

Registration No. 27,311

Laurel Bernstein

Registration No. 37,280

Robert S. Andrews

Registration No. 44,508

April Logan

Registration No. 33,950

Neil S. Bartfeld

Registration No. 39,901

Kenneth H. Tarbet

Registration No. 43,181

of ISIS PHARMACEUTICALS, INC., 2292 Faraday Avenue, Carlsbad, California 92008

Address all telephone calls and correspondence to:

WOODCOCK WASHBURN LLP

One Liberty Place - 46th Floor

Philadelphia PA 19103

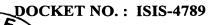
Telephone No.: (215) 568-3100 Facsimile No.: (215) 568-3439

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

w	Name: mulhiah Mithiah Manoharan	Ansterial meshing
/	Mailing Address:	Signature
	7634 Reposado Drive Carlsbad, CA 92009	Date of Signature: u [30] u/
	City/State of Actual Residence:	C'A LA TIOA
	Carlsbad, CA 92009	Citizenship: USA

Name:	
Venkatraman Mohan	
Mailing Address:	Signature
7042 Via Cabana	Data of Signatures
Carlsbad, CA 92009	Date of Signature:
City/State of Actual Residence:	Citizenship: India
Carlsbad, CA 92009	
Name:	
Phillip Dan Cook	Thill Dalvon
Mailing Address:	Signature
5237 Olive Hill Road	Date of Signature: Des 7, 700
Fallbrook, CA 92028	Date of Signature:
City/State of Actual Residence:	Citizanahina IICA
Fallbrook, CA 92028	Citizenship: USA
* 1	
Name:	
Andrew M. Kawasaki	
Mailing Address:	Signature
10554 Abalone Terrace	Date of Signatures
San Diego, CA 92130	Date of Signature:
City/State of Actual Residence:	Citizenship: USA

San Diego, CA 92130





The Application of: Manoharan et al.

Serial No.: 09/303,586

Group Art Unit: Not yet

assigned

Filed: October 4, 2001

Examiner: Not yet assigned

For: Oligonucleotides Having A-DNA and B-DNA Form Conformational Geometry

Assistant Commissioner for Patents Washington, DC 20231

Sir:

50579-1

ASSOCIATE POWER OF ATTORNEY

The undersigned, of the firm WOODCOCK WASHBURN LLP, One Liberty Place - 46th Floor, Philadelphia, Pennsylvania 19103, Attorney and/or Agents for Applicant(s), hereby appoints the following:

Richard E. Kurtz	Registration No. 19,263	Anthony J. Rossi	Registration No. 24,053
Dale M. Heist	Registration No. 28,425	Terence P. Strobaugh	Registration No. 25,460
John W. Caldwell	Registration No. 28,937	Michael J. Swope	Registration No. 38,041
Gary H. Levin	Registration No. 28,734	Michael J. Bonella	Registration No. 41,628
Steven J. Rocci	Registration No. 30,489	Harold H. Fullmer	Registration No. 42,560
Dianne B. Elderkin	Registration No. 28,598	John E. McGlynn	Registration No. 42,863
John P. Donohue, Jr.	Registration No. 29,916	Jonathan M. Waldman	Registration No. 40,861
Henrik D. Parker	Registration No. 31,863	Chad Ziegler	Registration No. 44,273
Suzanne E. Miller	Registration No. 32,279	Gwilym J.O. Attwell	Registration No. 45,449
Lynn B. Morreale	Registration No. 32,842	David N. Farsiou	Registration No. 44,104
Mark DeLuca	Registration No. 33,229	Paul K. Legaard	Registration No. 38,534
Joseph Lucci	Registration No. 33,307	Steven H. Meyer	Registration No. 37,189
Michael P. Dunnam	Registration No. 32,611	Paul B. Milcetic	Registration No. 46,261
Michael D. Stein	Registration No. 34,734	Joseph R. Condo	Registration No. 42,431
Albert J. Marcellino	Registration No. 34,664	Michael K. Jones	Registration No. 41,100
David R. Bailey	Registration No. 35,057	Frank T. Carroll	Registration No. 42,392
Doreen Yatko Trujillo	Registration No. 35,719	Thomas E. Watson	Registration No. 43,243
Barbara L. Mullin	Registration No. 38,250	Eric H. Vance	Registration No. 47,151
Kevin M. Flannery	Registration No. 35,871	Peter M. Ullman	Registration No. 43,963
David A. Cherry	Registration No. 35,099	Richard B. LeBlanc	Registration No. 39,495
Lynn A. Malinoski	Registration No. 38,788	Joseph D. Rossi	Registration No. 47,038
Steven B. Samuels	Registration No. 37,711	Rosaleen P. Morris-Oskanian	Registration No. 47,321
Janet E. Reed	Registration No. 36,252	George J. Awad	Registration No. 46,528
Jeffrey J. King	Registration No. 38,515	Steven D. Maslowski	Registration No. 46,905
Robert B. Washburn	Registration No. 16,574	S. Maurice Valla	Registration No. 43,966
Norman L. Norris	Registration No. 24,196	Emma R. Dailey	Registration No. 48,491
Albert W. Preston, Jr.	Registration No. 25,366	·	

DOCKET NO.: ISIS-4789 -2-

Vincent J. Roccia	Registration No. 43,887	Sharon Fenick	Registration No. 45,269
Robin S. Quartin	Registration No. 45,028	Daniel D. Biesterveld	Registration No. 45,898
Patrick J. Farley	Registration No. 42,524	Phillip A. Singer	Registration No. 40,176
Gregory L. Hillyer	Registration No. 44,154	Richard D. Watkins	Registration No. P50,993
Stephen C. Timmins	Registration No. 48,481	Wendy A. Choi	Registration No. 36,697
Erich M. Falke	Registration No. 49,049	Christine A. Goddard	Registration No. 46,731
Jane E. Inglese	Registration No. 48,444	Ellen M. Klann	Registration No. 44,836
Susan C. Murphy	Registration No. 46,221	Andrew J. Hagerty	Registration No. 44,141
Raymond N. Scott, Jr.	Registration No. 48,666	Scott E. Scioli	Registration No. 47,930
David L. Marcus	Registration No. 46,897		
Lawrence A. Aaronson	Registration No. 38,369		
John A. Harrelson	Registration No. 42,637		

his/her associates with full power to prosecute the above-identified application and to transact all business in the Patent Office connected therewith and requests that correspondence continue to be directed to the firm of WOODCOCK WASHBURN LLP at the above address.

Date: January 2, 2002

Michael P. Straher

Registration No. 38,325

Woodcock Washburn LLP One Liberty Place - 46th Floor Philadelphia PA 19103

Telephone: (215) 568-3100 Facsimile: (215) 568-3439

Ø 2001 WW

PATENT